

E-COMM-MENA Summit

Shaping the future of e-tail

24 April 2018, Dubai, UAE

**Real-Time Inventory Visibility: Is it a Myth or
Achievable Reality?**

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Agenda



SC Perspective and IV



Poor IV: Operational and strategic effects



IV: Levels, enablers/Challenges



Omni Channel & IV challenge



IV & Blockchain: Future Opportunities

Visibility: as a business strategy

- Increasing visibility is a critical strategy for enterprises
- Aimed at reducing costs and improving operational performance
- Increasingly complex and multi-tiered global supply-demand networks.



Source: Aberdeen Group, January 2011

Visibility drivers

- Globalisation & Outsourcing
- 3PL
- SC & logistics Complexity
- Technology and digitisation
- Sustainability pressure
- Customer expectations
- Rules and regulations
- Fierce competition



SCV

- Supply chain Visibility gives a clear view of inventory and supply chain activity, creating an agile global SC
- Information visibility is a requirement for supply chain agility and resilience.
- Upstream & Downstream SCV
- Information sharing & Information Quality

IV

- Inventory Visibility (IV) is an important aspect of SCV,
- It facilitates end-to-end SC process and supports SC decisions
- For enhanced SC effectiveness and efficiency
- It provides timely and accurate inventory information throughout a supply chain including RM, WIP and FG

Supply & Demand Visibility

Universal Inventory Visibility

Supply Chain Visibility



On order



In transit



On hand



Customer Demand Visibility



Shop online



Ship from warehouse



Drop-ship from vendor



Ship from store



Shop in-store



Pick up in-store



Same-day delivery

Sold

Delivered

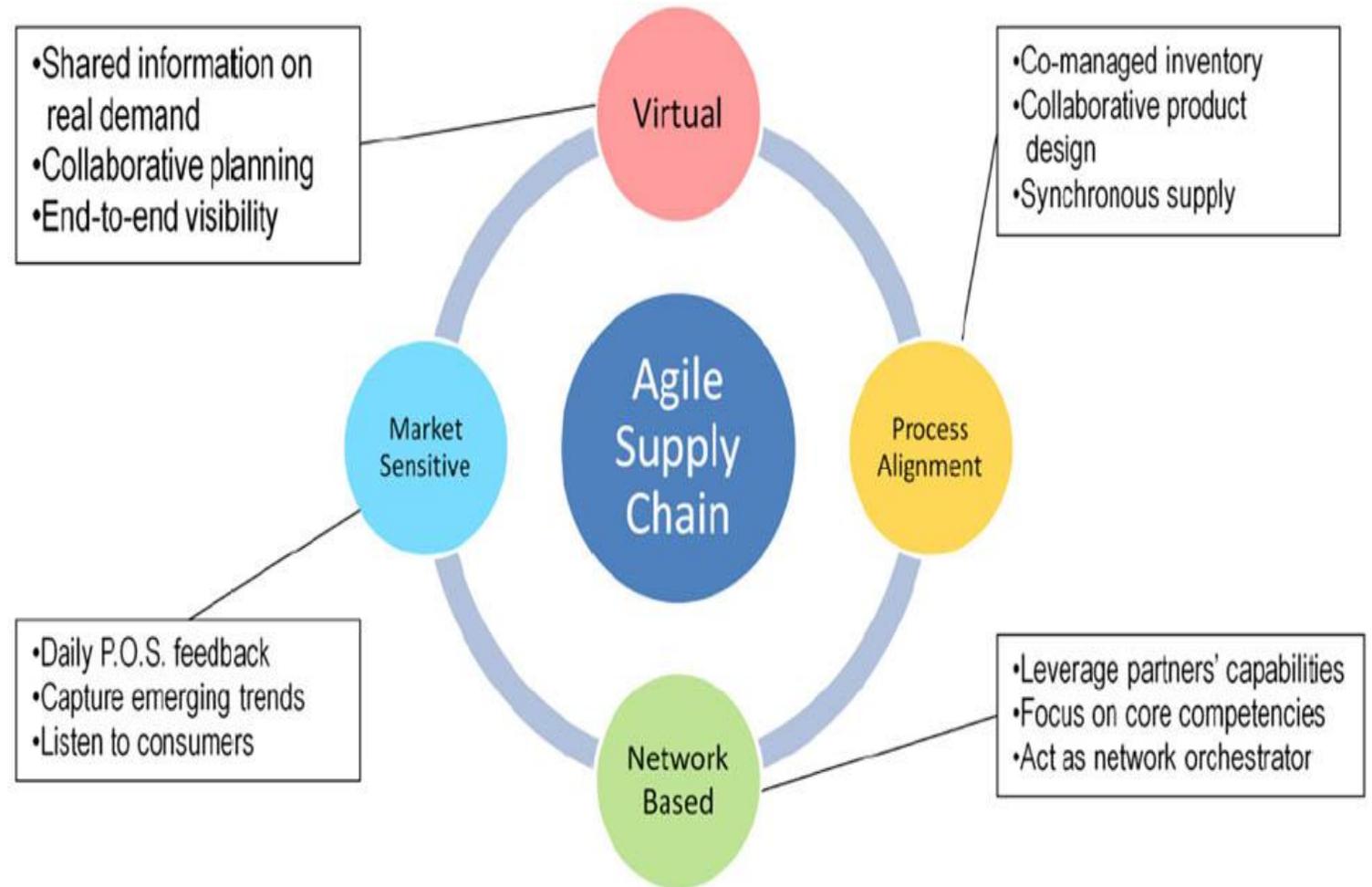
Visibility can improve the match between supply and demand.

Upstream and Downstream visibility pays off



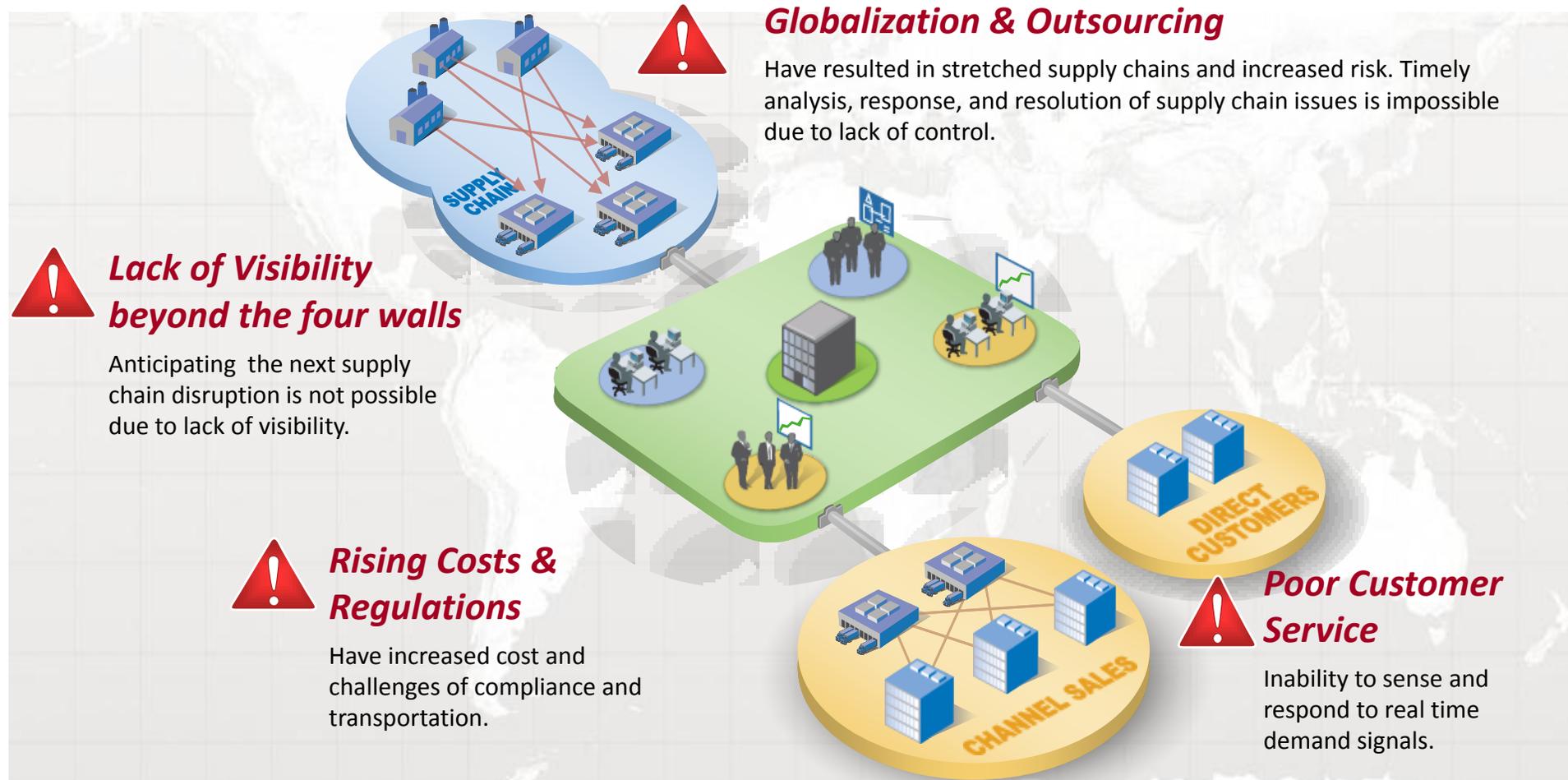
IV: Lean Vs. Agile SC

- **Product**
Functional Vs. Innovative
- **Demand**
Steady Vs. sporadic
- **Performance**
Efficiency Vs. Responsiveness

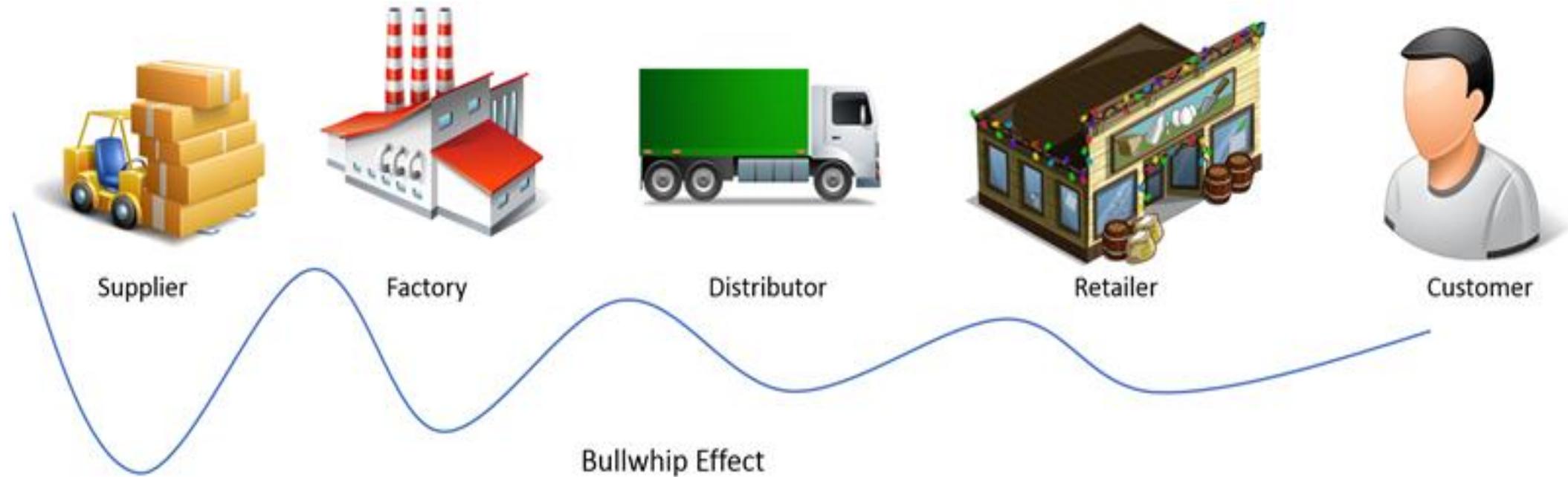


IV: Business perspective

Today's Supply Chain Challenges



Limited inventory visibility is a key challenge for many supply chains and results in bullwhip effect.



Bullwhip refers to the amplification of end-customers order signals, whereby upstream replenishment demand and physical shipments exceed the original quantity.

Amplified demand causes successive upswings and downswings in factory output and supply chain inventories. McCullen and Towill (2002)

Poor Inventory visibility

“Bullwhip” Effect – Main Causes



Inventory visibility levels

Action



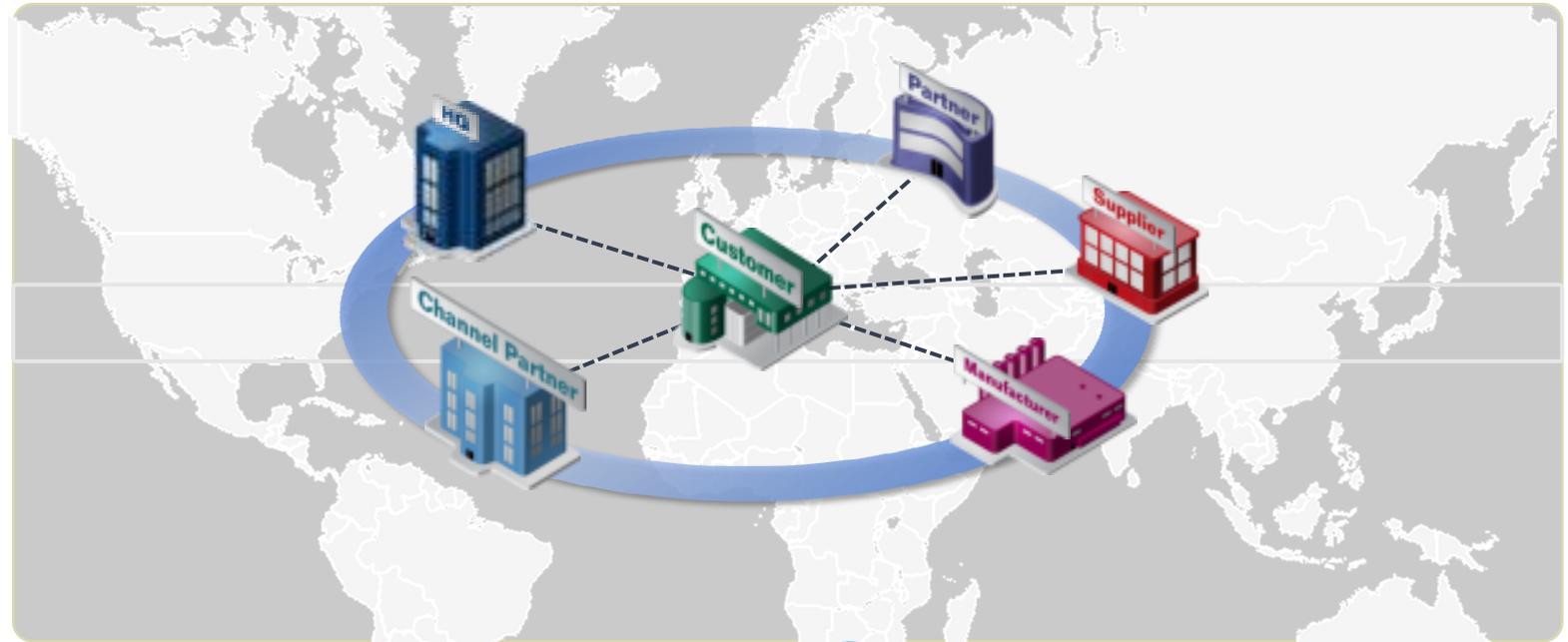
- Operational visibility/ Shipment tracking (*Physical, financial and information flows*)
 - Efficiency, responsiveness
- Supply chain event/ disruption management
 - Resilience
- Continuous improvement of the supply chain.
 - Enhanced performance & Sustainable CA

Visibility. While real-time shipment status information is vital in the global supply chain, process visibility is equally important to identify and resolve systemic problems. Identification tools such as RFID and bar codes; position detection systems; and container security devices all play a role in providing visibility.

IV for enhanced SC performance

Important to know:

- How to objectively quantify IV?,
- What is the extent of visibility?,
- How to know if IV has improved?, and
- What is the improvement in IV?



Improve visibility & collaboration

Treat suppliers, customers and partners as an extension of your organization



Improve customer service

Sense and respond to real time supply and demand signals



Streamline Logistics & Fulfillment

Maximize energy efficiency and minimize transportation costs



Manage risk & ensure compliance

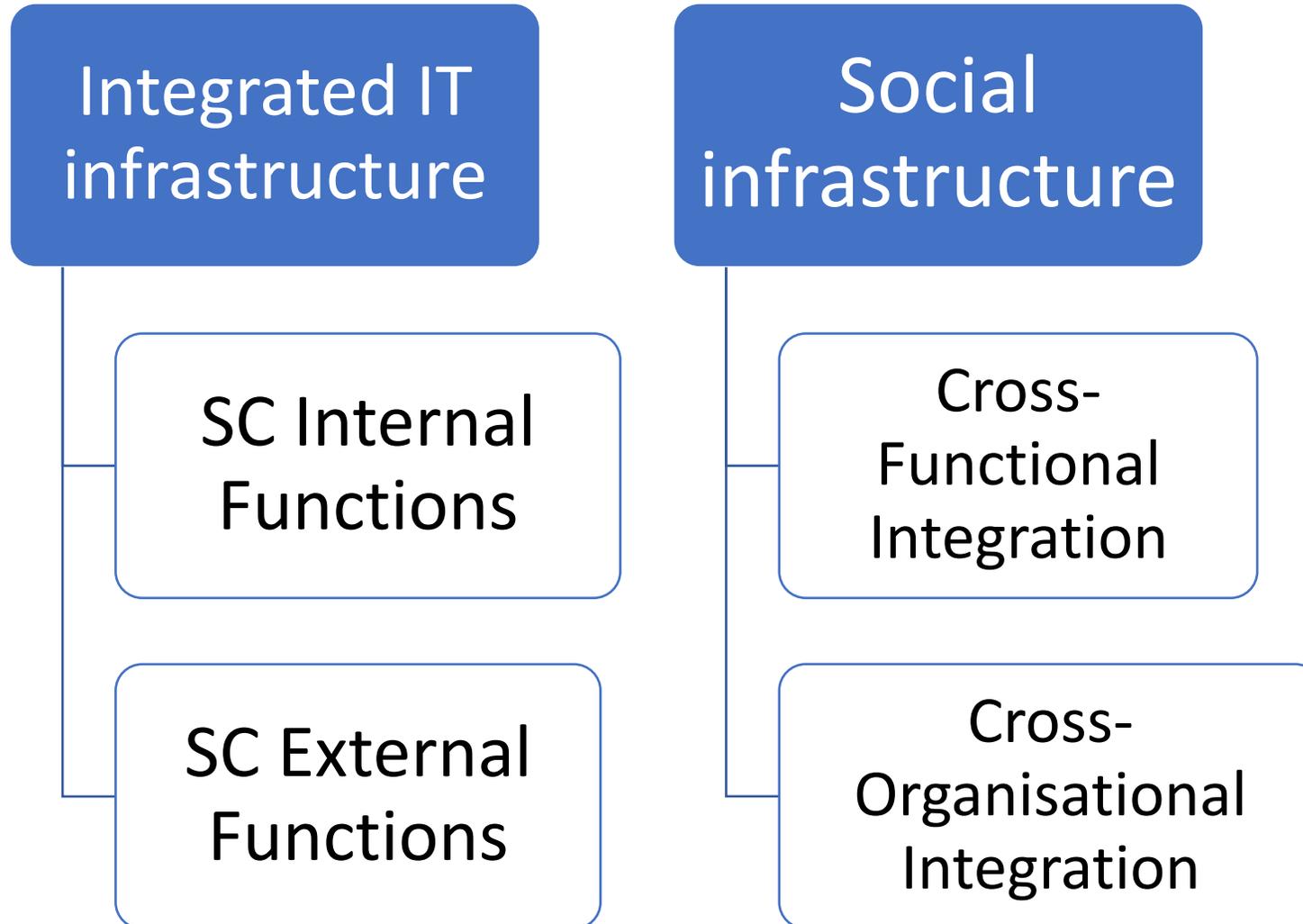
Analyze each events operational and financial impact to both cost and revenue



Leverage real-time data

from RFID, POS and sensor technologies

IV: Enablers/Challenges



Weak IT infrastructure threatens SCs



IV: Lack of Cross-Functional Integration

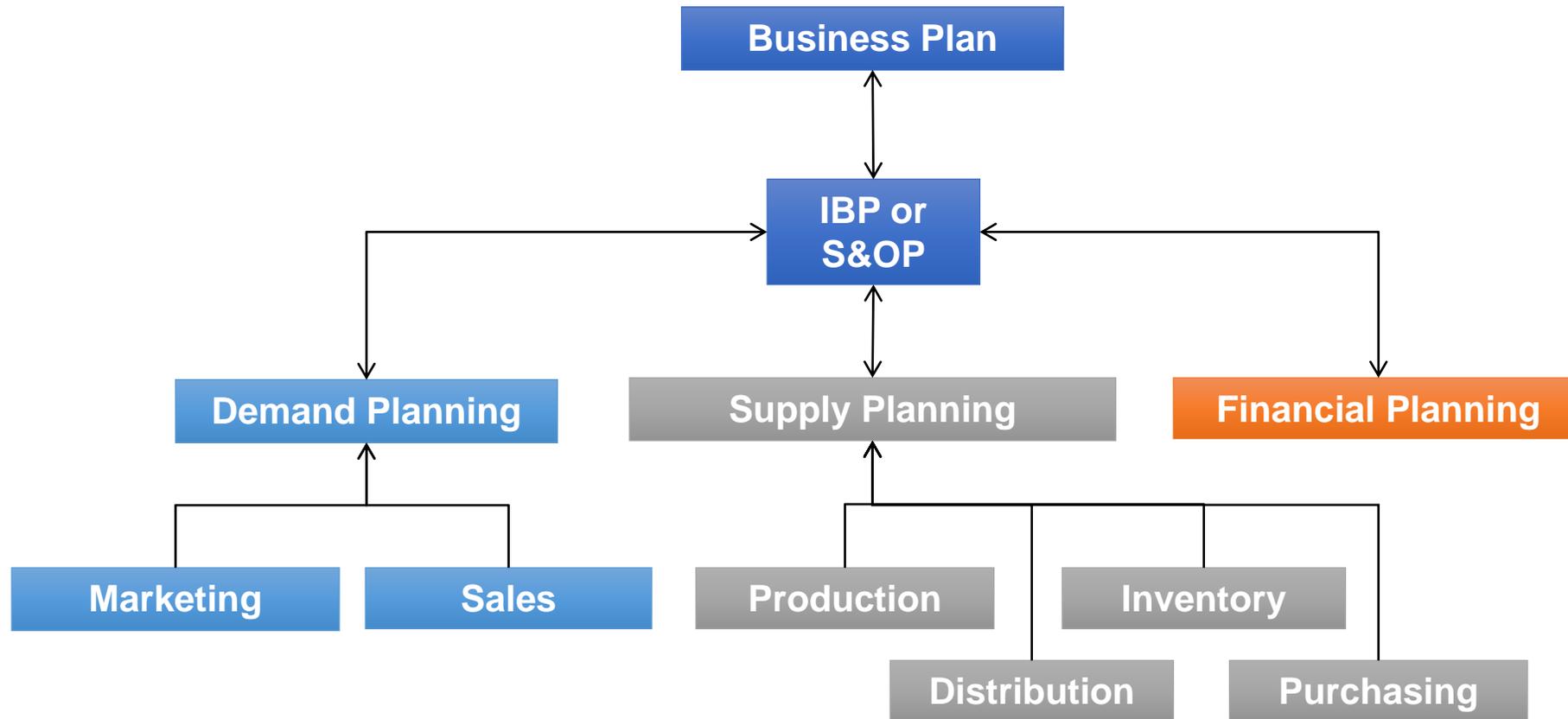
Most companies focus on material visibility



Poor internal visibility could be a major challenge for SCV.

Integrated business planning

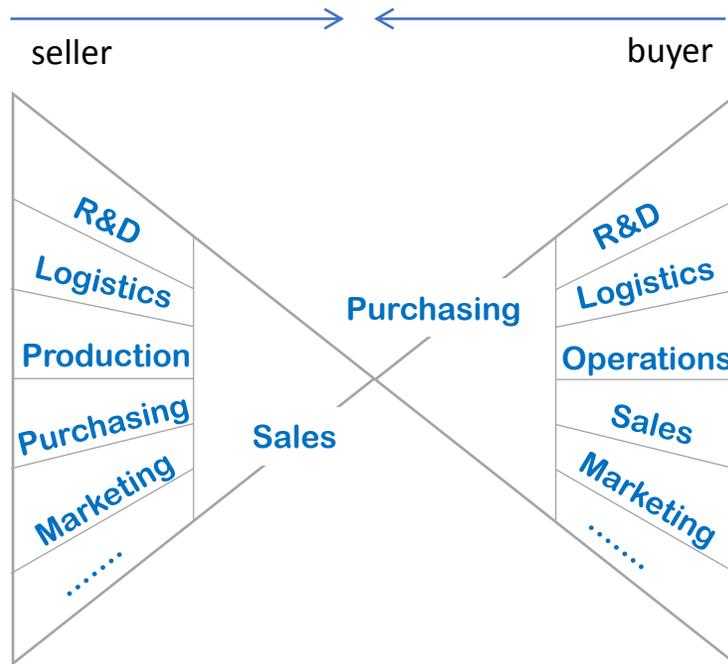
The process with which we bring together all the plans for the business into ONE integrated and agreed set of plans.



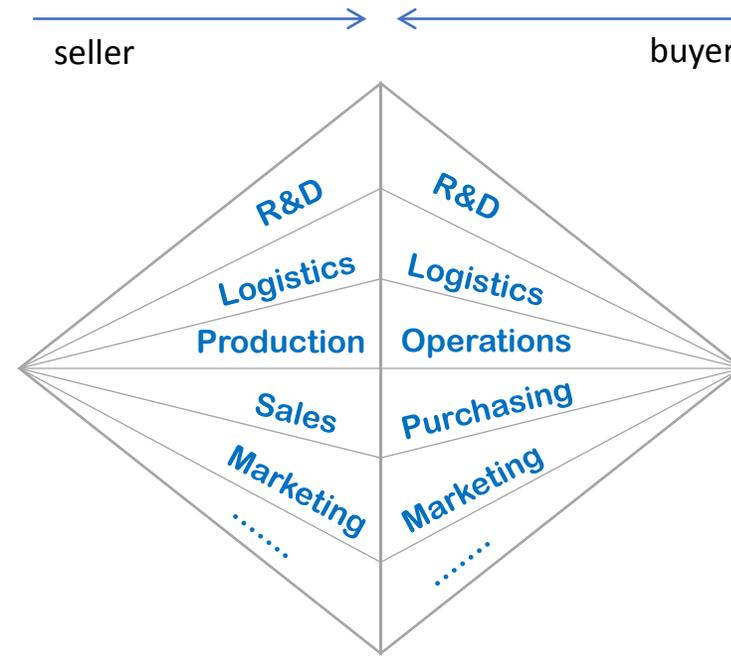
IBP = Integrated Business Planning

IV: Cross-organisational collaboration

From a traditional seller-buyer relationship to inter-organisational collaboration



Bow-tie Model
Single point of contact



Diamond Model
Multiple interfaces

IV: Multi-channel vs. Omni-Channel



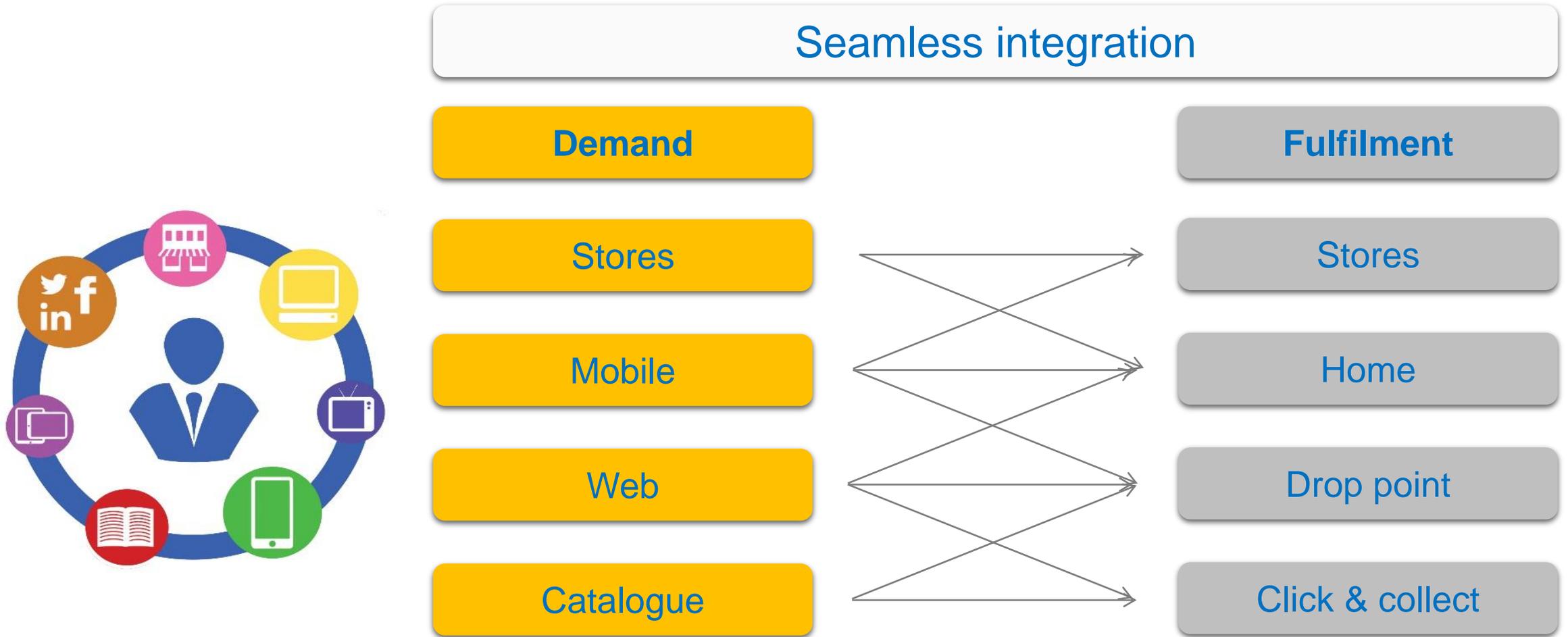
On-line
Shopping
challenges

Last Mile fulfilment

Reverse logistics

Redelivery: **50% of UK households have no-one at home during the day**

TV & Omni channel retailing



Often customers know more than retail store staff about their products!!

Upfront on-line expectations

- Tailored, personal shopping experience
- Shop anywhere, any time, from any location
- Right price
- Multiple, flexible delivery options – ‘one drop’
- Product availability, right size and colour and in stock
- Comprehensive product information
- Product reviews



Omni Channel: Personalisation & Extended Visibility

Developing an omni-channel strategy requires

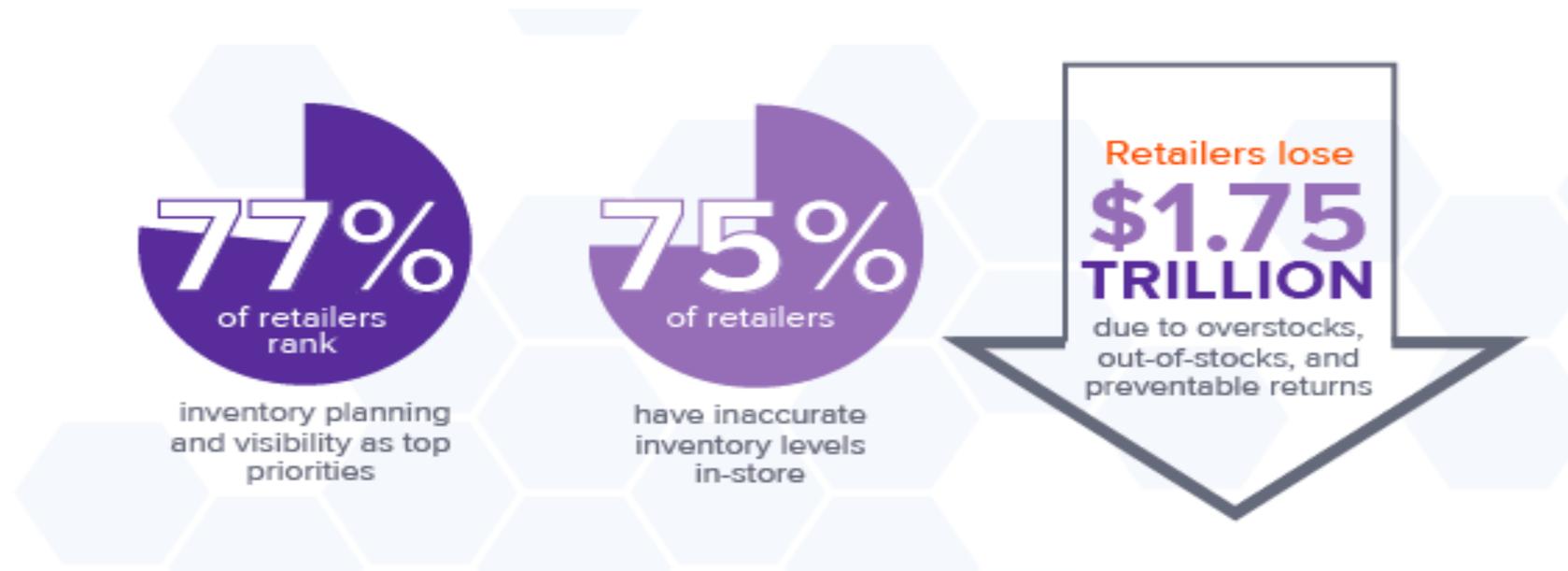
- A deep understanding about which customer channels are most important;
- To identify how customers interact with those channels, capturing **every interaction** along their **customer journey**.
- With that history stored, every interaction provides **context and data**, which will help any **live or automated assistance** provide a solution.

Omni Channel: as new operating business model

- Integration
- IT – Order Management System (OMS)
- Supply chain or network Optimisation
- Logistics (supply chain) is all about flow: A well-structured **Closed Loop SC**
- **Returns / reverse** logistics can kill flow: Customer driven delivery and return strategies
- Last mile logistics: unattended delivery Strategy



IV is one of the key Barriers to profitably and efficiently managing omnichannel retail operations:

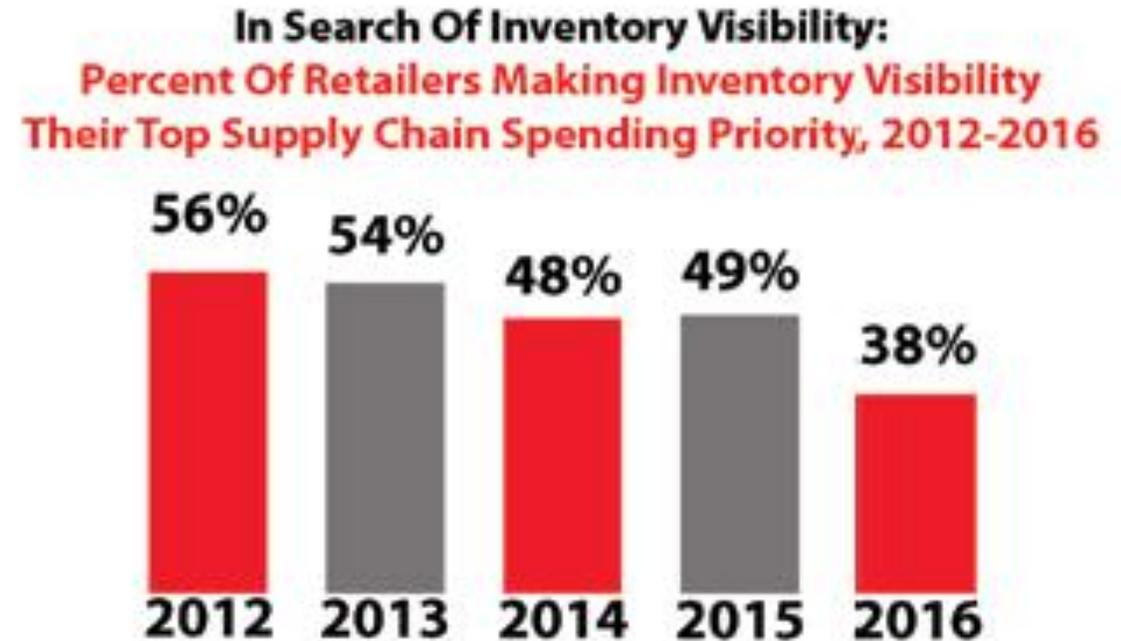


Source: <https://www.stitchlabs.com/resource/reports/inventory-visibility-unlocking-omnichannel-control-profitability/>

Siloed systems along with the need for fast and flexible fulfilment are other berries.

According to a study by Innovative Retail Technologies....

- **Inventory visibility** and **order management** are retailers' top-two supply chain spending initiatives.
- Inventory visibility has been key for the past five years
- In 2016, 38% percent of retailers planned to invest on solutions that improve inventory visibility and thus inventory management.
- More than a third invested in order management/fulfillment solutions.



Source: <http://www.impact-north-america.com/what-to-expect-in-retail-tech/>

Cloud applications for enhanced IV & order Management

Top ways retailers and restaurants are using cloud to drive business transformation



Better leverage data to provide insights

Improve interaction with customers, suppliers, partners

Drive cost efficiencies

32% New product development/innovation

32% Develop new business models

28% Enable a more flexible workforce

28% New market entry

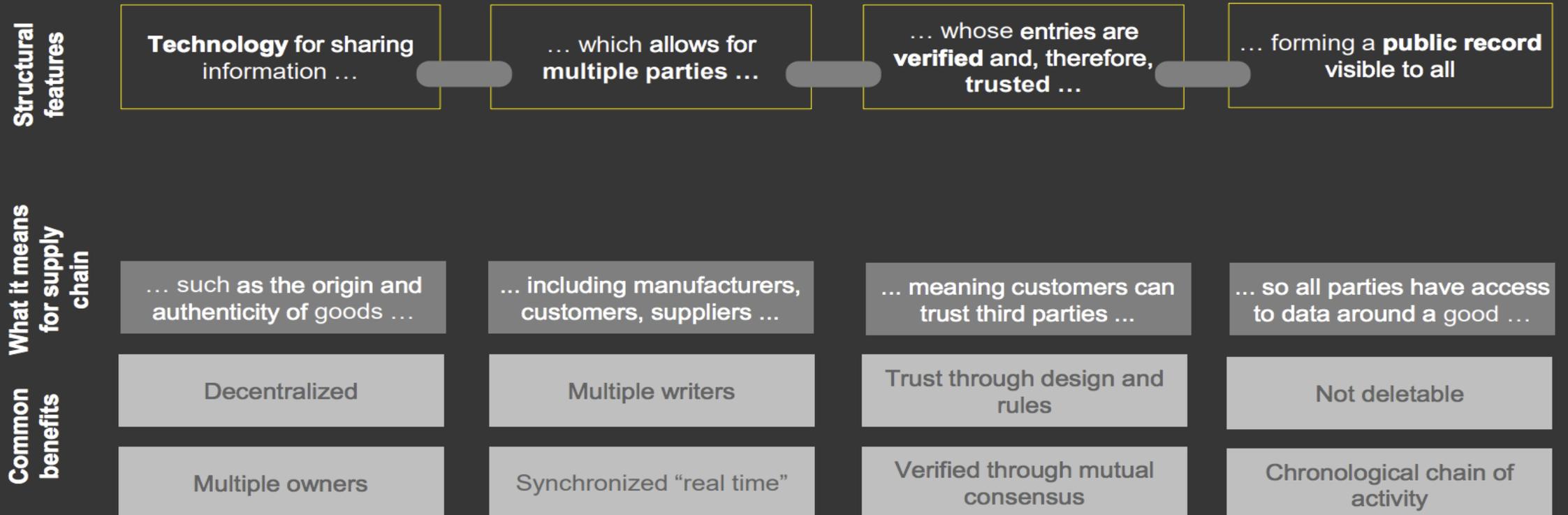
24% Shift to a global shared services model

Source: 2014 KPMG Cloud Survey Report

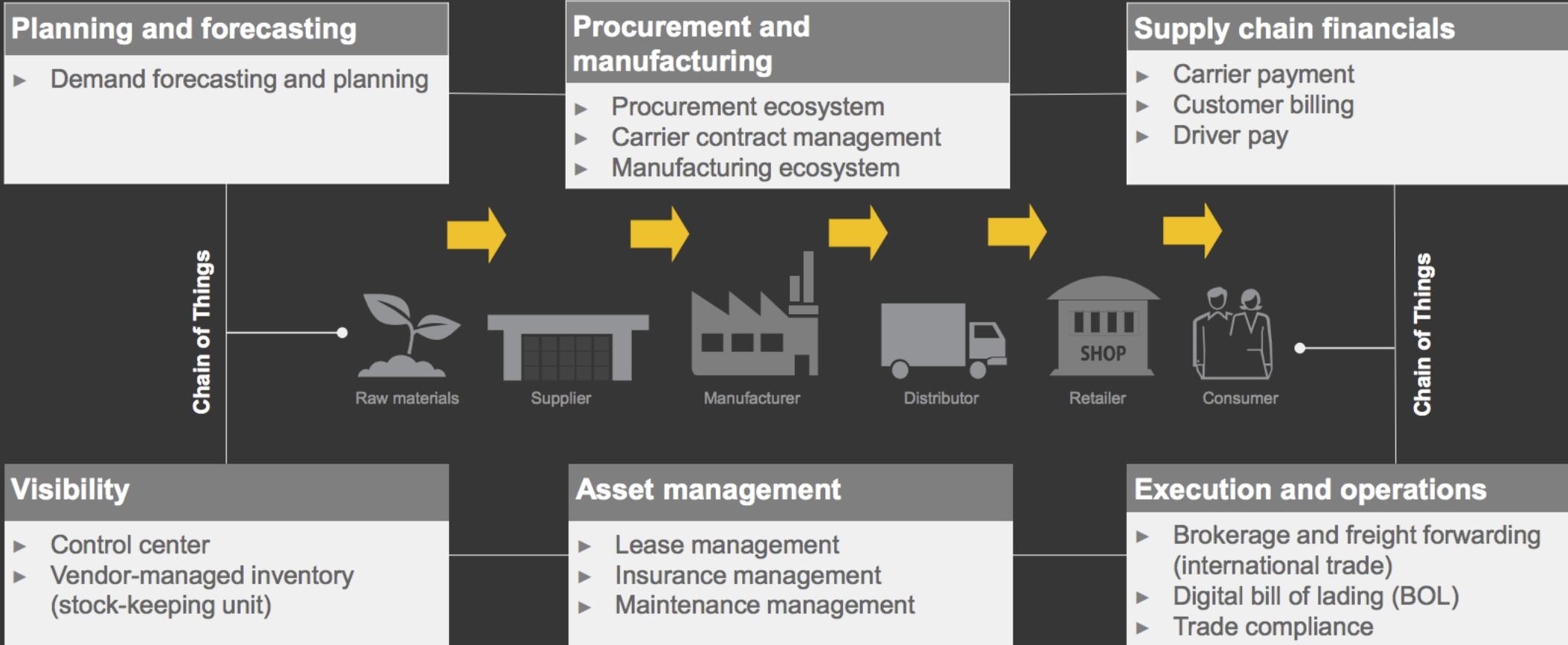
Security, availability and vendor maturity are all aspects that retailers consider when deciding which functions they want deployed from the cloud.

IV & Block Chain: Future Opportunities

Blockchain can provide a solution



Blockchain opportunities across the supply chain ecosystem



Customers are demanding greater trust, supply chain transparency and auditability.

Could blockchain give us the luxury of a fake-free world?

There are three types of business affected most by counterfeiting



1. Brands



2. Retailers



3. E-commerce platforms

Impacts of counterfeiting

- ▶ **Loss of revenue, especially resale (10% of sales)**
- ▶ **Loss of market share**
- ▶ **Damage to brand**
- ▶ **Lack of trust from consumers**

Why blockchain?

Allows brands to show path of a product from raw goods, to manufacturer, to distributor, to retailer, to consumer and even then to the resale market

Thank you!
Any Questions?

